

FOUO - CONFIDENTIAL

#### Abstract of the Disclosure

An economic supply optimization system is provided whereby an optimal machine dismantling configuration of a machine supply is determined to meet a parts demand at a lowest cost. The parts supply is calculated and it is determined what portions of the demand cannot be met from the machine supply and what portions of the demand it is not economically justifiable to meet from the machine supply. A parts supply is then determined from the machine supply. The remaining parts demand is matched to the parts supply to create a list of parts covered by the parts supply and a list of parts not covered by the parts supply, if there are any. The optimal dismantling configuration of the machine supply is calculated for the covered parts list and an optimal harvesting configuration is calculated for the not-covered parts list.